Access DB# 100787

SEARCH REQUEST FORM

Scientific and Technical Information Center

Requester's Full Name: K. Weddington Examiner #: 68082 Date: 8-8-03
Art Unit: 1614 Phone Number 308-4650 Serial Number: 09/763,499
Mail Box and Bldg/Room Location: CM1-2A17 Results Format Preferred (circle): PAPER DISK E-MAIL

If more than one search is submitted, please prioritize searches in order of need. MEJ

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Please provide a detailed statement of the search topic, and describe as specifically as possible the subject matter to be searched. Include the elected species or structures, keywords, synonyms, acronyms, and registry numbers, and combine with the concept or utility of the invention. Define any terms that may have a special meaning. Give examples or relevant citations, authors, etc, if known. Please attach a copy of the cover sheet, pertinent claims, and abstract.

Title of Invention: _____

Inventors (please provide full names): Namita Surolia

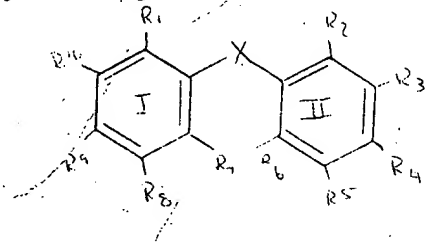
_____

Earliest Priority Filing Date: _____

For Sequence Searches Only *Please include all pertinent information (parent, child, divisional, or issued patent numbers) along with the appropriate serial number.*

Treating malaria with a hydroxydiphenylether compound

The hydroxydiphenyl ether of formula I



wherein the two phenyl rings (I + II) are joined by an oxygen (X = O) atom and either R_1 or R_2 represent a hydroxy (OH) group and the other being a hydrogen atom, respectively, or both being hydroxy groups and other positions (R_3 + R_{10}) of the phenyl rings I and II being substituted in various permutations and combinations of chlorine, bromine or iodine atoms or hydroxy, aldehyde or Keto groups or hydrogen atoms or ester group and optically the two phenyl rings being joined by a sulfur atom (X = S) or by a methylene (X = CH_2) group

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STAFF USE ONLY

Searcher: _____
Searcher Phone #: _____
Searcher Location: _____
Date Searcher Picked Up: 8/11
Date Completed: 8/11
Searcher Prep & Review Time: 15
Clerical Prep Time: _____
Online Time: 10

Type of Search

NA Sequence (#) _____
AA Sequence (#) _____
Structure (#) 1
Bibliographic _____
Litigation _____
Fulltext _____
Patent Family _____
Other _____

Vendors and cost where applicable

STN 337.81
Dialog _____
Questel/Orbit _____
Dr.Link _____
Lexis/Nexis _____
Sequence Systems _____
WWW/Internet _____
Other (specify) _____

PTO-1590 (8-01)

STIC SEARCH RESULTS FEEDBACK FORM

Biotech-Chem Library

Questions about the scope or the results of the search? Contact ***the searcher or contact:***

Mary Hale, Information Branch Supervisor
308-4258, CM1-1E01

Voluntary Results Feedback Form

- *I am an examiner in Workgroup:* ☐ *Example: 1610*
- *Relevant prior art **found**, search results used as follows:*
  - ☐ 102 rejection
  - ☐ 103 rejection
  - ☐ Cited as being of interest.
  - ☐ Helped examiner better understand the invention.
  - ☐ Helped examiner better understand the state of the art in their technology.

Types of relevant prior art found:

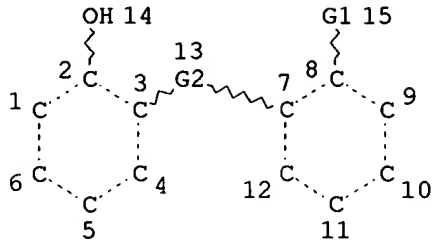
- ☐ Foreign Patent(s)
- ☐ Non-Patent Literature
  (journal articles, conference proceedings, new product announcements etc.)

- *Relevant prior art **not found:***
  - ☐ Results verified the lack of relevant prior art (helped determine patentability).
  - ☐ Results were not useful in determining patentability or understanding the invention.

Comments:

Drop off or send completed forms to STIC/Biotech-Chem Library CM1 – Circ. Desk

=> d que
L1 STR



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VAR G2=O/S/CH2
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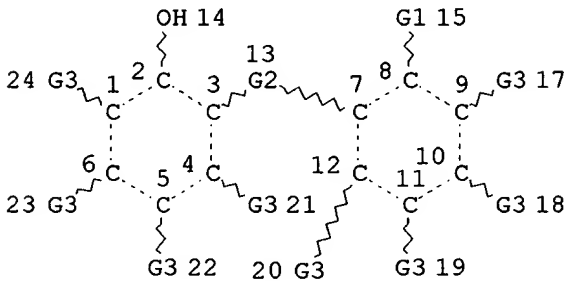
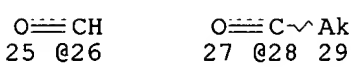
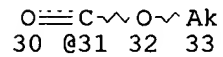
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1 7
NUMBER OF NODES IS 15

STEREO ATTRIBUTES: NONE
L3 9947 SEA FILE=REGISTRY SSS FUL L1
L4 STR







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VAR G2=O/16/CH2
VAR G3=CL/BR/I/OH/26/28/31/H
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CONNECT IS E1 RC AT 29
CONNECT IS E1 RC AT 33
DEFAULT MLEVEL IS ATOM
DEFAULT ECLEVEL IS LIMITED

GRAPH ATTRIBUTES:
RSPEC 1 7
NUMBER OF NODES IS 33

STEREO ATTRIBUTES: NONE
L5 1130 SEA FILE=REGISTRY SUB=L3 SSS FUL L4
L6 575 SEA FILE=REGISTRY ABB=ON PLU=ON L5 AND NC=1
L7 5877 SEA FILE=HCAPLUS ABB=ON PLU=ON L6

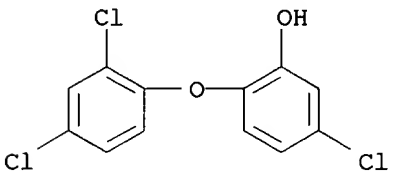
=> d ibib ab hitstr l7 1-10 3000-3010 5868-5877

L7 ANSWER 1 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:570624 HCAPLUS
TITLE: Sanitizing hand cleanser
INVENTOR(S): Narula, Vinod K.; Narula, Dipak
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 11 pp., Cont.-in-part of U.S. Ser. No. 973,327.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 2
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003139307	A1	20030724	US 2002-246818	20020918
US 2002077257	A1	20020620	US 2001-973327	20011009
US 6472356	B2	20021029		

PRIORITY APPLN. INFO.: US 2000-241900P P 20001020
US 2001-973327 A2 20011009

AB The present invention relates to a liq. cleansing product that effectively reduces the level of microbes on the skin in a relatively short wash time and which dries quickly without causing damage and drying to the skin. The sanitizing cleanser compn. comprises an effective amt. of alc. to produce a redn. in microorganisms on the surface of the skin, and an additive to maintain the skin pH in the range of 4.0-6.0. The cleanser compn. may further include silicone to aid further the drying process, and emollients or oils for skin moisturizing. Thus, a formulation contained EtOH 74.70, p-chloro-m-xylenol 3.75, Dow Corning-345 fluid 14.92, sodium lactate 3.46, iso-Pr myristate 1.44, Dow Corning-749 0.96, Methocel-OS 0.48, and fragrance 0.29%.
IT INDEXING IN PROGRESS
IT **3380-34-5**, Triclosan
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(sanitizing hand cleanser)
RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



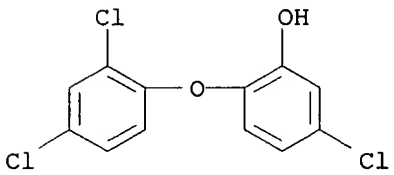
L7 ANSWER 2 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:551200 HCAPLUS
DOCUMENT NUMBER: 139:106536
TITLE: Self-curing systems containing thiourea and hydroperoxide derivatives for endodontic sealant applications
INVENTOR(S): Jin, Shuhua; Jia, Weitao
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 7 pp.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003134933	A1	20030717	US 2002-252073	20020920

PRIORITY APPLN. INFO.: US 2001-323615P P 20010920

AB A two-part self-curing endodontic sealing system comprises a thiourea deriv., such as acetylthiourea (ATU), and a hydroperoxide, such as cumene hydroperoxide (CHP). The thiourea deriv. is used as a reducing agent and the hydroperoxide is used as an oxidizing agent. For example, ATU and CHP pastes were prepd. using a methacrylate resin (Bis-GMA-TEGDMA copolymer, 60:40) and fillers. The CHP paste contained resin 33%, BHT 0.005%, CHP 1%, and glass filler 66%. The ATU paste contained resin 33%, BHT 0.03%, ATU 1%, methacrylic acid 3.3%, Ca3(PO4)2 31.5%, and BaSO4 31.5%. Gel time and setting time of a self-curing system obtained by mixing these two pastes in a 1:1 ratio at 22.degree. were 4 min and 30 s, and 6 min and 30 s., resp.

IT **3380-34-5**, Triclosan
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(self-curing system contg. polymerizable resin, thiourea reducing agent and hydroperoxide oxidizing agent for endodontic sealants)
RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 3 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:550967 HCAPLUS
DOCUMENT NUMBER: 139:106533
TITLE: Method of impregnating polymeric medical devices with triclosan
INVENTOR(S): Knors, Christopher J.; Tropsha, Yelena; Harvey, Noel G.; Clarke, Richard P.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 9 pp., Cont.-in-part of U.S. Ser. No. 451,831, abandoned.

CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

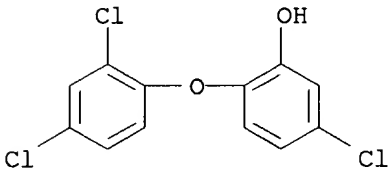
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003133831	A1	20030717	US 2003-354620	20030130

PRIORITY APPLN. INFO.: US 1999-451831 B2 19991130

AB A method of impregnating a polymeric medical device with an antimicrobial agent is disclosed. The method involves forming a soln. by dissolving triclosan in a compressed fluid and contacting the polymeric medical device with the soln. After the soln. has been infused into the polymeric medical device, the soln. and the medical device are sepd. Triclosan (130 mg) was loaded into a 2-mL reactor along with a single silicone rubber disk. The disk was allowed to degas overnight, and after degassing, the disk was weighed. The reactor was charged with approx. 1.6 g carbon dioxide at 1800 psi. The silicone rubber disk was recovered and rinsed with water. A small amt. of oil was present in the reactor after treatment, presumably from extn. of uncured silicone monomer by the liq. carbon dioxide. The disks showed the presence of triclosan at or near the surface of the sample, evidenced by absorption bands in the 1300-1700 cm-1 and 3000-3500 cm-1 regions in the IR spectrometry.

IT **3380-34-5**, Triclosan
RL: THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(method of impregnating polymeric medical devices with triclosan)

RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 4 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:547939 HCAPLUS
DOCUMENT NUMBER: 139:73994
TITLE: Sterilizing liquid
INVENTOR(S): Yang, Zhenqiu
PATENT ASSIGNEE(S): Peop. Rep. China
SOURCE: Faming Zhuanli Shenqing Gongkai Shuomingshu, 13 pp.
CODEN: CNXXEV
DOCUMENT TYPE: Patent
LANGUAGE: Chinese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
CN 1356034	A	20020703	CN 2001-145564	20011229

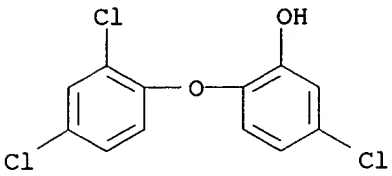
PRIORITY APPLN. INFO.: CN 2001-145564 20011229

AB The title sterilizing liq. is composed of DP300, solvent and stabilizing agent. The synergist is selected from polyoxyethylene fatty alc. ether, ganbaosu, laurinol sulfate and glutaral; the solvent from ethanol and isopropanol; and the stabilizing agent from poly(vinyl alc.) and glycerol. The product can also be used as sterilizing additive.

IT **3380-34-5**, DP 300
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); THU (Therapeutic use); BIOL (Biological study); PROC (Process); USES (Uses)
(sterilizing liq.)

RN 3380-34-5 HCAPLUS

CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 5 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 2003:532647 HCAPLUS

DOCUMENT NUMBER: 139:101122

TITLE: Preparation of 3,4-diarylpyrazoles as inhibitors of heat shock protein 90 (HSP90) and their use in the therapy of cancer

INVENTOR(S): Drysdale, Martin James; Dymock, Brian William; Barril-Alonso, Xavier; Workman, Paul; Pearl, Laurence Harris; Prodromou, Chrisostomos; MacDonald, Edward

PATENT ASSIGNEE(S): Ribotargets Limited, UK; Cancer Research Technology Ltd.; The Institute of Cancer Research

SOURCE: PCT Int. Appl., 299 pp.
CODEN: PIXXD2

DOCUMENT TYPE: Patent

LANGUAGE: English

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055860	A1	20030710	WO 2002-GB5778	20021219

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM

RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

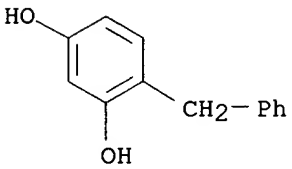
PRIORITY APPLN. INFO.: GB 2001-30733 A 20011221
GB 2002-25688 A 20021104

AB A method of inhibiting HSP90 comprises administration of title compds. [I; Ar3, Ar4 = (substituted) C5-20 aryl; R5 = H, halo, OH, ether, formyl, acyl, CO2H, ester, acyloxy, oxycarbonyloxy, amido, acylamido, aminocarbonyloxy, tetrazolyl, amino, NO2, cyano, N3, sulfhydryl, thioether, sulfonamido, C1-7 alkyl, C3-20 heterocyclyl, C5-20 aryl; R = H, C1-7 alkyl, C3-20 heterocyclyl, C5-20 aryl] and pharmaceutically acceptable salts, solvates, amides, esters, ethers, chem. protected forms, and prodrugs thereof. Thus, 7-hydroxy-3-phenylchromen-4-one and hydrazine hydrate were refluxed 45 min. in EtOH to give 4-(4-phenyl-1H-pyrazol-3-yl)benzene-1,3-diol. This inhibited HSP90 activity with IC50 = 10-100 .mu.M.

IT **2284-30-2P**, 4-Benzylbenzene-1,3-diol
RL: RCT (Reactant); SPN (Synthetic preparation); PREP (Preparation); RACT (Reactant or reagent)
(prepn. of diarylpyrazoles as inhibitors of heat shock protein 90 and their use in the therapy of cancer)

RN 2284-30-2 HCAPLUS

CN 1,3-Benzenediol, 4-(phenylmethyl)- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 13 THERE ARE 13 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 6 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:532574 HCAPLUS
DOCUMENT NUMBER: 139:86992
TITLE: Method for separating reaction mixtures and recycling quaternary salts
INVENTOR(S): Reisinger, Claus-Peter; Hansen, Sven-Michael; Fischer, Peter; Traving, Michael
PATENT ASSIGNEE(S): Bayer Aktiengesellschaft, Germany
SOURCE: PCT Int. Appl., 37 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003055602	A1	20030710	WO 2002-EP14571	20021219

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG,

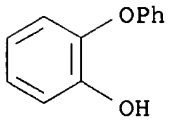
CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

DE 10164145 A1 20030710 DE 2001-10164145 20011227
PRIORITY APPLN. INFO.: DE 2001-10164145 A 20011227

AB In the title process, useful in the recycling of catalysts, mixts. of quaternary salts, phenols, reaction products, and, optionally, solvents are extd. with H2O or aq. solns. to give aq. phases and org. phases which are sepd., the aq. phase is extd. with an org. phase contg. 2-100% phenols, the org. phase is recycled or the quaternary salt is isolated, and extn. steps are repeated as required. Extn. of a mixt. of 33.2 g Bu4N+ Br-, 33.2 g (PhO)2CO, and 195 mL PhCl contg. 0.98% PhOH with 200 mL H2O gave distribution coeffs. for Bu4NBr 0.32, (PhO)2CO >1000, PhCl >500, and PhOH 6.1.

IT **2417-10-9**, 2-Phenoxyphenol
RL: PEP (Physical, engineering or chemical process); PYP (Physical process); PROC (Process)
(method for sepg. reaction mixts. and recycling quaternary salts in the presence of phenols)

RN 2417-10-9 HCAPLUS
CN Phenol, 2-phenoxy- (9CI) (CA INDEX NAME)



REFERENCE COUNT: 1 THERE ARE 1 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 7 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:527418 HCAPLUS
DOCUMENT NUMBER: 139:86877
TITLE: Bactericidal compositions for care of wood and plastic surfaces
PATENT ASSIGNEE(S): F.W. Barth & Co. GmbH, Germany
SOURCE: Ger. Gebrauchsmusterschrift, 8 pp.
CODEN: GGXXFR
DOCUMENT TYPE: Patent
LANGUAGE: German
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 20215292	U1	20030710	DE 2002-20215292	20021004

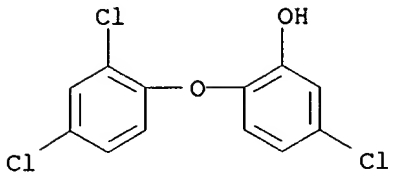
PRIORITY APPLN. INFO.: DE 2002-20206387 U 20020422

AB The title compns., giving surfaces with durable antibacterial activity, are aq. dispersions, esp. of polyacrylates or polyurethanes, contg. bactericides (esp. halophenols).

IT **3380-34-5**, Triclosan
RL: BUU (Biological use, unclassified); BIOL (Biological study); USES (Uses)
(bactericidal compns. for care of wood and plastic surfaces)

RN 3380-34-5 HCAPLUS

CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 8 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:512062 HCAPLUS
DOCUMENT NUMBER: 139:73752
TITLE: Topical compositions containing surfactants having enhanced deposition on surface
INVENTOR(S): Seitz, Earl P.; Waggoner, Andrea Lynn; Fox, Priscilla S.; Taylor, Timothy J.
PATENT ASSIGNEE(S): USA
SOURCE: U.S. Pat. Appl. Publ., 41 pp., Cont.-in-part of U.S. Ser. No. 578,020.
CODEN: USXXCO
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 5
PATENT INFORMATION:

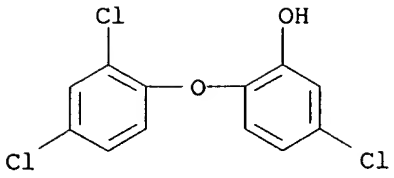
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2003125224	A1	20030703	US 2002-192449	20020710
US 6107261	A	20000822	US 1999-338654	19990623
US 6451748	B1	20020917	US 2000-578020	20000524

PRIORITY APPLN. INFO.: US 1999-338654 A1 19990623
US 2000-578020 A2 20000524

AB Topically active compns. having enhanced effectiveness are disclosed. The compns. contain a topically active compd., an anionic surfactant, a hydric solvent, a hydrotrope, an optional cosurfactant, and water, wherein a percent satn. of the topical active compd. of the compn. is at least 25%. The compns. exhibit a rapid and effective topical effect, and effectively deposit the topically active compd. for an effective residual effect. Thus, a hand-wash compn. contained triclosan 0.3, ammonium lauryl sulfate 0.75, didpropylene glycol 5.0, sodium xylenesulfonate 15.0, and water qs to 100%.

IT **3380-34-5**, Triclosan
RL: COS (Cosmetic use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(topical compns. having enhanced deposition on surface)

RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 9 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:511412 HCAPLUS
DOCUMENT NUMBER: 139:84365
TITLE: Cereal beta glucan compositions, methods of preparation and uses thereof
INVENTOR(S): Redmond, Mark J.; Fielder, David A.
PATENT ASSIGNEE(S): Ceapro Inc., Can.
SOURCE: PCT Int. Appl., 42 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003054077	A1	20030703	WO 2002-CA1896	20021211

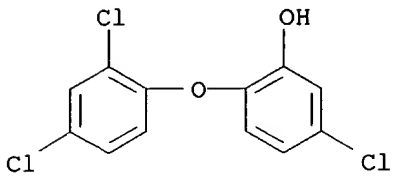
W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SI, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

PRIORITY APPLN. INFO.: US 2001-338649P P 20011211

AB Cereal .beta.(1.fwdarw.3) .beta. (1.fwdarw.4) glucan is used as a film or coating agent to produce clear, edible, biodegradable, delivery, lubricating, and protecting agents. Cereal .beta.(1.fwdarw.-3) .beta. (1.fwdarw.4) glucans are distinctive polymers of glucose differentiated from other polymers by not only their source but also their physicochem. properties. The .beta.(1.fwdarw.3) .beta. (1.fwdarw.4) forms a matrix to sequester other materials, such as pharmaceutical, medical and therapeutic agents, flavors, fragrances. The technol. has applications to essential oils and non-aq. materials that are rendered deliverable by the .beta.(1.fwdarw.3) .beta. (1.fwdarw.4) glucan. The .beta.(1.fwdarw.3) .beta. (1.fwdarw.4) glucan films described may be consumed whereby they dissolve in the mouth in a controlled manner and may be used for the delivery of pharmaceutical, medical or confectionery products.

IT **3380-34-5**, Triclosan
RL: FFD (Food or feed use); THU (Therapeutic use); BIOL (Biological study); USES (Uses)
(antimicrobial; prepn. and uses of cereal beta glucan compns. for delivery of pharmaceutical, medical or confectionery products)
RN 3380-34-5 HCAPLUS

CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



REFERENCE COUNT: 14 THERE ARE 14 CITED REFERENCES AVAILABLE FOR THIS RECORD. ALL CITATIONS AVAILABLE IN THE RE FORMAT

L7 ANSWER 10 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 2003:511392 HCAPLUS
DOCUMENT NUMBER: 139:86709
TITLE: Antimicrobial radiation curable urethane polymer coating
INVENTOR(S): Ong, Ivan W.; Wilson, Barry C.; Watterson, Robert S.
PATENT ASSIGNEE(S): Microban Products Company, USA
SOURCE: PCT Int. Appl., 20 pp.
CODEN: PIXXD2
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

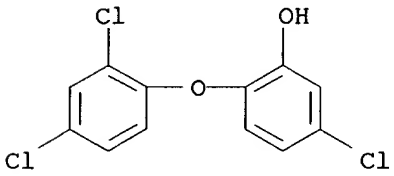
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
WO 2003054045	A2	20030703	WO 2002-US32228	20021009

W: AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NO, NZ, OM, PH, PL, PT, RO, RU, SD, SE, SG, SI, SK, SL, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW, AM, AZ, BY, KG, KZ, MD, RU, TJ, TM
RW: GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW, AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, IE, IT, LU, MC, NL, PT, SE, SK, TR, BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG

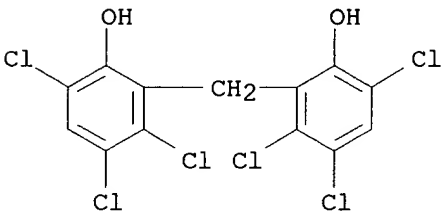
PRIORITY APPLN. INFO.: US 2001-328202P P 20011010

AB The invention is a radiation curable coating contg. an antimicrobial agent, where upon irradn. with UV light, the radiation curable coating rapidly cures to a polymeric coating. The polymeric coating has durable antimicrobial properties, being esp. effective at preventing the growth of Staphylococcus aureus and Kleibsella pneumoniae on wood flooring and furniture. The major components in the radiation curable coating are a urethane acrylic oligomer, a radiation cure package, an antimicrobial agent, a crosslinking agent, and optionally, an additive package. The radiation curable urethane oligomer is a relatively short chain backbone urethane polymer that is end capped with a radiation curable moiety, where the moiety is an acrylic. The crosslinking agent is one or more monomers used to lower the viscosity and promote crosslinking, and include acrylate esters of mono-, di-, tri-, or tetrafunctional alcs. The radiation cure package contains at least one photoinitiator.

IT **3380-34-5**, 2,4,4'-Trichloro-2'-hydroxydiphenyl ether
RL: MOA (Modifier or additive use); USES (Uses)
(Antimicrobials; antimicrobial radiation curable acrylic urethane polymer coating)
RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



IT **70-30-4**, Hexachlorophene
RL: MOA (Modifier or additive use); USES (Uses)
(antimicrobials; antimicrobial radiation curable acrylic urethane polymer coating)
RN 70-30-4 HCAPLUS
CN Phenol, 2,2'-methylenebis[3,4,6-trichloro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

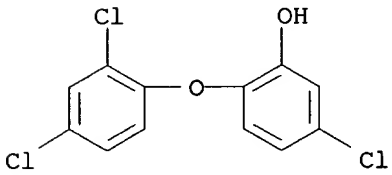


L7 ANSWER 3000 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:401909 HCAPLUS
DOCUMENT NUMBER: 101:1909
TITLE: The acute toxicity of penta-, hexa-, and heptachlorohydroxydiphenyl ethers in mice
AUTHOR(S): Miller, Terry L.; Lorusso, David J.; Walsh, Marilyn L.; Deinzer, Max L.
CORPORATE SOURCE: Dep. Agric. Chem., Oregon State Univ., Corvallis, OR, 97331, USA
SOURCE: Journal of Toxicology and Environmental Health (1983), 12(2-3), 245-53
CODEN: JTEHD6; ISSN: 0098-4108
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The acute i.p. LD50s for chlorinated hydroxydiphenyl ethers (I, n = 5-7) in mice were detd. The acute toxicities were on the order of, or slightly less than, that detd. previously for 2-hydroxy-2',4,4'-trichlorodiphenyl ether (II) [**3380-34-5**]. However, the acute toxicities detd. for I were substantially less than those detd. for the perchlorohydroxydiphenyl ethers and pentachlorophenol [87-86-5]. I had a marked hypothermic effect, similar to II. Symptomatol. following exposure

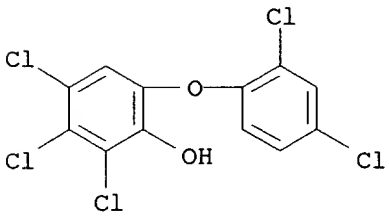
to I suggested a nonspecific depressant effect on the central nervous system.

IT **3380-34-5 53555-01-4 61639-90-5**
RL: ADV (Adverse effect, including toxicity); BIOL (Biological study) (toxicity of)

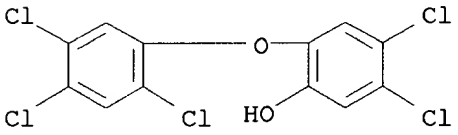
RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



RN 53555-01-4 HCAPLUS
CN Phenol, 2,3,4-trichloro-6-(2,4-dichlorophenoxy)- (9CI) (CA INDEX NAME)



RN 61639-90-5 HCAPLUS
CN Phenol, 4,5-dichloro-2-(2,4,5-trichlorophenoxy)- (9CI) (CA INDEX NAME)



L7 ANSWER 3001 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:211977 HCAPLUS
DOCUMENT NUMBER: 100:211977
TITLE: Caustic-sensitive, water-resistant labeling adhesive
INVENTOR(S): Jannusch, Leonard C.
PATENT ASSIGNEE(S): Fuller, H. B., Co., USA
SOURCE: U.S., 6 pp.
CODEN: USXXAM
DOCUMENT TYPE: Patent
LANGUAGE: English
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE

US 4440884	A	19840403	US 1982-435356	19821020
EP 106691	A1	19840425	EP 1983-306279	19831017

R: AT, BE, CH, DE, FR, GB, IT, LI, LU, NL, SE

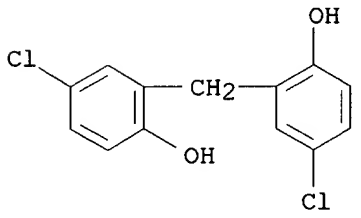
PRIORITY APPLN. INFO.: US 1982-435356 19821020

AB The addn. of maleic anhydride-styrene copolymer (I) [9011-13-6] or polyacrylate(II), dicyandiamide (III) [461-58-5], urea [57-13-6], Al powder, and NH4OH to aq. starch (IV) [9005-25-8] or casein gave products, resistant to humidity and H2O, for use as adhesive for paper labels, which debond in the presence of strong base. Thus, paper labels were coated with a mixt. of H2O 36.64, highly branched IV 25.75, defoamer 0.75, I 4.21, urea 5.22, III 2.18, 55% II emulsion 21.0, Al powder (particle size 16 .mu.) 2, 29.4% NH4OH 1.94 g, and 0.25 part 2,2'-methylenebis[4-chlorophenol] and attached to glass bottles. The labels were debonded in 2.75-3.50 min on immersing in 4% NaOH at 70.degree., as compared with 30 min debonding time for label adhesive contg. no Al.

IT **97-23-4**
RL: USES (Uses)
(starch contg. aluminum, additives and, adhesives for paper labels, alkali-removable)

RN 97-23-4 HCAPLUS

CN Phenol, 2,2'-methylenebis[4-chloro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 3002 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1984:211949 HCAPLUS

DOCUMENT NUMBER: 100:211949

TITLE: Wood preservatives

PATENT ASSIGNEE(S): Earth Chemical Co., Ltd., Japan; Iwatani and Co., Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 11 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59016703	A2	19840127	JP 1982-127206	19820720
JP 03033482	B4	19910517		
JP 63270610	A2	19881108	JP 1988-68989	19880322
JP 06027042	B4	19940413		

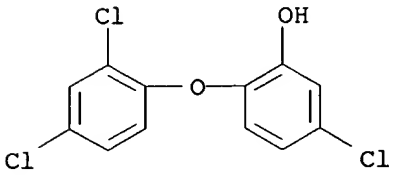
PRIORITY APPLN. INFO.: JP 1982-127206 19820720

AB The title preservatives sprayable without fire hazard comprise insecticide 40-75, an antiseptic 5-20, solvent 0-15, and liq. CO2 5-30 wt.%. Thus, a mixt. consisting of chlordane [12789-03-6] 490, IF 1000 [133-06-2] 125,

n-paraffin 100, and CO2 310 g was charged in a 1 L capacity cylinder to give a typical spray compn. for termite control in dwellings.

IT **3380-34-5**
RL: USES (Uses)
(in sprayable wood preservatives)

RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 3003 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:211598 HCAPLUS
DOCUMENT NUMBER: 100:211598
TITLE: Washfast antibacterial yarns
PATENT ASSIGNEE(S): Shikishima Spinning Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 4 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

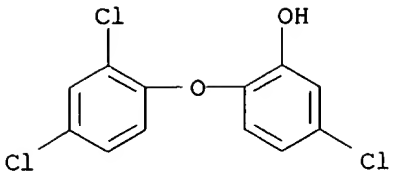
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 59001773	A2	19840107	JP 1982-110098	19820625
JP 61010594	B4	19860329		

PRIORITY APPLN. INFO.: JP 1982-110098 19820625

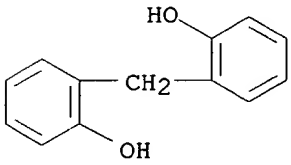
AB Yarns treated with emulsions contg. a bactericide and (or) a fungicide and an alkylethyleneurea are antibacterial with improved washfastness. Thus, cotton yarns were treated with an emulsion contg. octadecylethyleneurea [3891-29-0] 200, 2,4,4'-trichloro-2'-hydroxydiphenyl ether [**3380-34-5**] 30, 2-[(methoxycarbonyl)amino]benzimidazole 4-n-dodecylbenzolesulfonate [90173-86-7] 20, EtMe alc. 100, dinonylphenol-ethylene oxide adduct 50, and H2O 500 g for 20 min at 40.degree.. The treated yarns were squeezed to 100% pickup and cured 10 min at 100.degree. to give antibacterial yarns with good washfastness.

IT **3380-34-5**
RL: BAC (Biological activity or effector, except adverse); BSU (Biological study, unclassified); BIOL (Biological study)
(bactericides, finishes contg., for cotton yarns)

RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 3004 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:184287 HCAPLUS
DOCUMENT NUMBER: 100:184287
TITLE: Electroerosion machining in working media containing organometallic compounds
AUTHOR(S): Vanyushov, B. G.; Gonor, A. A.; Rogachevskaya, T. A.; Shvartsbart, M. A.
CORPORATE SOURCE: Leningrad, USSR
SOURCE: Elektronnaya Obrabotka Materialov (1984), (1), 17-21
CODEN: EOBMAF; ISSN: 0013-5739
DOCUMENT TYPE: Journal
LANGUAGE: Russian
AB The addn. of Ba alkylphenolates or their mixts. with Zn dialkylphenyldithiophosphates to the kerosine-oil working medium for electroerosion machining decreased the wear of the tool electrode by 2.5-3-fold and increased the productivity by .ltoreq.35%.
IT **2467-02-9D**, C8-12 derivs., barium salt
RL: USES (Uses)
(electroerosion machining media contg.)
RN 2467-02-9 HCAPLUS
CN Phenol, 2,2'-methylenebis- (9CI) (CA INDEX NAME)



L7 ANSWER 3005 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:183247 HCAPLUS
DOCUMENT NUMBER: 100:183247
TITLE: Self-erasing type 2-component diazo copying materials
PATENT ASSIGNEE(S): Ricoh Co., Ltd., Japan
SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF
DOCUMENT TYPE: Patent
LANGUAGE: Japanese
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58002831	A2	19830108	JP 1981-100488	19810630

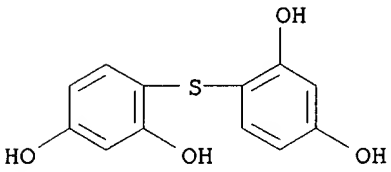
PRIORITY APPLN. INFO.: JP 1981-100488 19810630

AB A self-erasing type 2-component type diazo copying material is composed of (1) a support; (2) a decolorization layer contg. a reducing agent or oxidizing agent; (3) an intermediate layer made of an alkali-sol. resin with .gtoreq.1 CO2H group(s); and (4) a photosensitive layer contg. a diazo compd., a coupler and a Ca salt. Thus, a paper support was coated with a compn. contg. SnCl2, Me cellulose, and silica, then coated with an alginic acid soln. (contg. Na salt), and coated with a compn. contg. citric acid, urea, CaCl2, N-(3-morpholinopropyl)-2-hydroxy-3-naphthamide, 4-morpholino-2,5-dibutoxybenzenediazonium chloride zinc chloride, caffeine, and saponin to give a diazo copying paper having good storage stability and excellent self-erasing characteristics.

IT **97-29-0**
RL: USES (Uses)
(self-erasing type diazo copying paper contg.)

RN 97-29-0 HCAPLUS

CN 1,3-Benzenediol, 4,4'-thiobis- (9CI) (CA INDEX NAME)



L7 ANSWER 3006 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1984:158117 HCAPLUS

DOCUMENT NUMBER: 100:158117

TITLE: Antibacterial acrylic fiber manufacture

PATENT ASSIGNEE(S): Kanebo, Ltd., Japan; Kanebo Synthetic Fibers, Ltd.

SOURCE: Jpn. Kokai Tokkyo Koho, 6 pp.
CODEN: JKXXAF

DOCUMENT TYPE: Patent

LANGUAGE: Japanese

FAMILY ACC. NUM. COUNT: 1

PATENT INFORMATION:

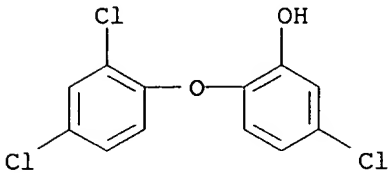
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
JP 58169511	A2	19831006	JP 1982-49469	19820327

PRIORITY APPLN. INFO.: JP 1982-49469 19820327

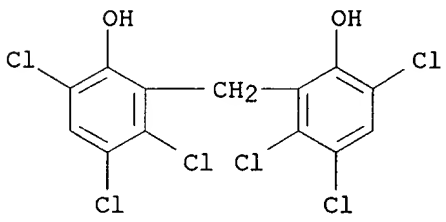
AB Spinning compns. contg. an acrylic polymer, a water-insol. polymer not compatible with the acrylic polymer, and a di-Ph ether deriv. I are useful for manuf. of washfast antibacterial fibers with improved bactericide retention. Thus, a liquor contg. 97:3 (wt. ratio) mixt. of 90.3:9.0:0.7 acrylonitrile-Me acrylate-sodium methallylsulfonate copolymer [26658-88-8] and polystyrene [9003-53-6] and 0.02% (on polymer wt.) 2,4,4'-trichloro-2'-hydroxydiphenyl ether [**3380-34-5**] was spun into a coagulating bath. The spun fibers were drawn in 20% DMF at 90.degree., washed, dried, crimped, and crimp-set in steam at 110.degree. to give antibacterial washfast fibers with good bactericide retention.

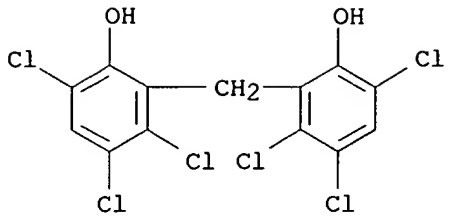
IT **3380-34-5**
RL: USES (Uses)
(bactericides for, acrylic fibers contg., with improved spinning retention)

RN 3380-34-5 HCAPLUS
CN Phenol, 5-chloro-2-(2,4-dichlorophenoxy)- (7CI, 8CI, 9CI) (CA INDEX NAME)

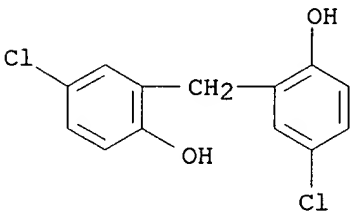


L7 ANSWER 3007 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:150689 HCAPLUS
DOCUMENT NUMBER: 100:150689
TITLE: Electrophoretic studies on serum proteins to assess hepatotoxicity in liver fluke infested buffaloes and treated with different flukicides
AUTHOR(S): Kumar, Mahesh; Maru, Ajit; Pachauri, S. P.
CORPORATE SOURCE: Coll. Vet. Sci., G. B. Pant Univ. Agric. Technol., Pantnagar, 263 145, India
SOURCE: Life Science Advances (1983), 2(1), 41-5
CODEN: LSADDN; ISSN: 0255-6642
DOCUMENT TYPE: Journal
LANGUAGE: English
AB An investigation of the electrophoretic pattern of serum proteins and total proteins to assess hepatotoxicity in buffaloes affected with fascioliasis and treated with different flukicidal drugs was conducted. Of 510 buffaloes examd., 88 were infested with Fasciola gigantica. The affected buffaloes had a decrease in total serum protein; in treated buffaloes these became nearly normal. The electrophoretic pattern of serum proteins in infested buffaloes showed a decrease in albumins and .alpha.-globulins. There was no change in .beta.-globulins. There was an increase in the .gamma.-globulin fraction in infested buffaloes, which decreased to near-normal levels at the completion of the expt. A decrease in the albumin:globulin ratio was also seen in buffaloes with fascioliasis. The results indicated the therapeutic efficacy of disophenol [305-85-1] as a flukicide when compared with nitroxynil [1689-89-0] and hexachlorophene **[70-30-4]**.
IT **70-30-4**
RL: BIOL (Biological study)
(Fasciola gigantica infestation treatment with, proteins of blood serum response in, in buffalo)
RN 70-30-4 HCAPLUS
CN Phenol, 2,2'-methylenebis[3,4,6-trichloro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)

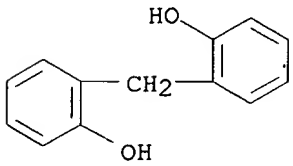




L7 ANSWER 3008 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:139857 HCAPLUS
DOCUMENT NUMBER: 100:139857
TITLE: Dipole moments, hydrogen bonding and conformational properties for ortho-linked phenol-formaldehyde model oligomers
AUTHOR(S): Tobiason, Fred L.; Houglum, Karl; Shanafelt, Armen; Boehmer, Volker
CORPORATE SOURCE: Chem. Dep., Pac. Lutheran Univ., Tacoma, WA, 98447, USA
SOURCE: Polymer Preprints (American Chemical Society, Division of Polymer Chemistry) (1983), 24(2), 181-2
CODEN: ACPPAY; ISSN: 0032-3934
DOCUMENT TYPE: Journal
LANGUAGE: English
AB The effects of substituents and chain length on the dipole moments, intramol. H bonding, and chain conformation of ortho-linked phenolic oligomers were investigated.
IT **97-23-4 2467-02-9**
RL: PRP (Properties)
(dipole moments of)
RN 97-23-4 HCAPLUS
CN Phenol, 2,2'-methylenebis[4-chloro- (6CI, 8CI, 9CI) (CA INDEX NAME)



RN 2467-02-9 HCAPLUS
CN Phenol, 2,2'-methylenebis- (9CI) (CA INDEX NAME)

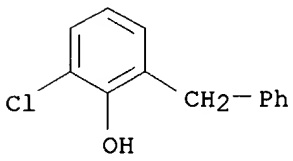


L7 ANSWER 3009 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:138679 HCAPLUS
DOCUMENT NUMBER: 100:138679
TITLE: Alkylation of 2- and 4-chlorophenols by alkyl halides in the presence of small amounts of catalysts
AUTHOR(S): Alieva, M. K.; Akhmedov, K. N.
CORPORATE SOURCE: Tashk. Gos. Univ., Tashkent, USSR
SOURCE: Zhurnal Organicheskoi Khimii (1983), 19(10), 2131-4
CODEN: ZORKAE; ISSN: 0514-7492
DOCUMENT TYPE: Journal
LANGUAGE: Russian
OTHER SOURCE(S): CASREACT 100:138679

AB Alkylating 2-ClC6H4OH (I) with PhCH2Cl in presence of FeCl3, FePO4, FeSO4 or ZnSO4 in 5:1:1.06 .times. 10-3 molar ratio at 130-40.degree. gave 2,6- and 2,4-Cl(PhCH2)C6H3OH in 0.40-0.43:1 ratio and 75.4-82.5% combined yield. Using Fe2(SO4)3 gave the same product ratio but only 9% yield. Substrate reactivity decreases in the order PhOH >3- >4- (II) .mchgt. 2-ClC6H4OH. Alkylating I with RCl (R = cyclohexyl, cyclopentyl) or RBr (III; R = EtCHMe, n-C5H11, PrCHMe) gave 2,6- and 2,4-Cl(R)C6H3OH (same R) in 0.76-0.85:1 ratio and 34.8-70% yield. Alkylating II with III (R = Bu, n-C5H11) gave 86-90% 4,2-Cl(R)C6H3OH (IV; R = EtCHMe, PrCHMe, resp.) and only 4-9% IV (R = Bu, n-C5H11, resp.).

IT **38932-56-8P**
RL: SPN (Synthetic preparation); PREP (Preparation)
(prepn. of)

RN 38932-56-8 HCAPLUS
CN Phenol, 2-chloro-6-(phenylmethyl)- (9CI) (CA INDEX NAME)

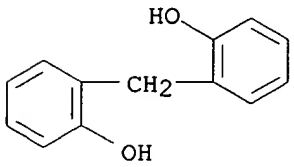


L7 ANSWER 3010 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1984:138437 HCAPLUS
DOCUMENT NUMBER: 100:138437
TITLE: The structure of decomposing [C7H7O]+ ions: benzyl versus tropylium ion structures
AUTHOR(S): Russell, D. H.; Freiser, B. S.; McBay, E. H.; Canada, D. C.
CORPORATE SOURCE: Dep. Chem., Texas A and M Univ., College Station, TX, 77843, USA
SOURCE: Organic Mass Spectrometry (1983), 18(11), 474-85
CODEN: ORMSBG; ISSN: 0030-493X
DOCUMENT TYPE: Journal
LANGUAGE: English

AB The unimol. dissocn. reactions for [C7H7O]+ ions generated from a series of precursor mols. were studied. The metastable kinetic energy values and branching ratios assocd. with decarbonylation and expulsion of HCHO from the [C7H7O]+ ions are interpreted as the hydroxybenzyl and hydroxytropylium [C7H7O]+ not interconverting to a common structure on the

.mu.s time-scale. Similar measurements on protonated PhCHO, methylaryloxy, and Ph methylene ether [C7H7O]+ ions are interpreted as the dominant fraction of these decompg. ions having unique structures on the .mu.s time-scale. These results are supported by exptl. heats of formation calcd. from ionization/appearance energy measurements. The results reported in this paper together with those reported for stable [C7H7O]+ ions (C. J. Cassady, et al.; 1983) show that the relative population of benzyl vs. tropylium [C7H7O]+ ion structures from a given precursor mol. is detd. by isomerization of the parent ion and not by structural equil. of the [C7H7O]+ ion.

IT **2467-02-9**
RL: PRP (Properties)
(mass spectrum of)
RN 2467-02-9 HCAPLUS
CN Phenol, 2,2'-methylenebis- (9CI) (CA INDEX NAME)



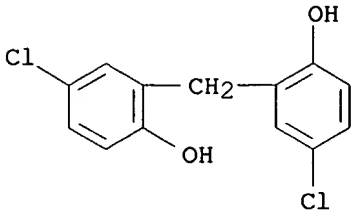
L7 ANSWER 5868 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1944:18530 HCAPLUS
DOCUMENT NUMBER: 38:18530
ORIGINAL REFERENCE NO.: 38:2666i,2667a-b
TITLE: Isomerizing liquefied normal C4H10
INVENTOR(S): Harding, Clarke T.
PATENT ASSIGNEE(S): Standard Oil Development Co.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2334553		19431116	US	

AB An arrangement of app. is described, and a process is employed for isomerizing liquefied C4H10 with a catalyst comprising AlCl3 at temps. in the range of about 150-300.degree.F. under sufficient pressure to maintain the C4H10 liquid, while flowing upwardly a stream of the liquefied butane contg. the catalyst in suspension into a reaction zone at a controlled velocity to maintain a concn. of about 25 to 125% of catalyst in the reaction zone and to deplete the concn. of the catalyst in liquefied hydrocarbons flowing from and upwardly beyond the reaction zone, accumulating a liquid body of normal butane and isobutane above the reaction zone, cooling this liquid body, withdrawing a portion of liquefied butanes from the liquid body for the recovery of isobutane, and recycling another portion of the liquid body to the reaction zone for further isomerization.

IT **97-23-4**, Phenol, 2,2'-methylenebis[4-chloro-
(prepn. of)
RN 97-23-4 HCAPLUS

CN Phenol, 2,2'-methylenebis[4-chloro- (6CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 5869 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1943:39421 HCAPLUS
DOCUMENT NUMBER: 37:39421
ORIGINAL REFERENCE NO.: 37:6253e-i,6254a
TITLE: Gattermann reaction in the monomethoxydiphenyl ethers
AUTHOR(S): Ungnade, H. E.; Orwoll, E. F.
SOURCE: Journal of the American Chemical Society (1943), 65, 1736-9
CODEN: JACSAT; ISSN: 0002-7863
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

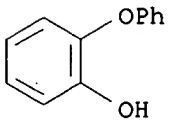
AB The application of the Gattermann reaction to 4-MeOC6H4OPh (I) gives 6% of the 4'-aldehyde (Harington and Pitt Rivers, C. A. 34, 7872.2), whereas the 2- (II) and 3-isomer (III) of I yield 40-50% of a mixt. of aldehydes which could not be sepd. KMnO4 oxidation of the product from II gives 3,4-PhO(MeO)C6H3CO2H (IV), m. 186-6.5.degree.. 3,4-Br(H2N)C6H3Me yields 93-6% of 3,4-Br(HO)C6H3Me(b20 102-4.degree.) and this gives 78% of 3,4-Br(MeO)C6H3Me (V). PhOK (from 9.4 g. PhOH; dried 3 hrs. at 160.degree. in vacuo), 4-7 g. PhOH, 18.4 g. V and 0.03 g. Cu powder, heated 3 hrs. at 200.degree., give 11.6 g. of 3-phenoxy-4-methoxytoluene (VI), m. 38.5-9.degree.. VI (1.4 g.) in 13.5 cc. AcOH, 13.5 cc. 47% HI and 5 cc. Ac2O, refluxed 50 min., gives 1.2 g. of 3-phenoxy-4-hydroxytoluene, m. 69.7-70.degree.; KMnO4 oxidation of VI gives IV. IV is not demethylated by HI in AcOH-Ac2O but on heating with 48% HBr in AcOH for 4 hrs. at 150.degree. or on refluxing with AlCl3 in C6H6 for 2 hrs. it gives 3-phenoxy-4-hydroxybenzoic acid, m. 187.6-8.degree.. Demethylation (AlCl3) of the product from II yields 30% of 3-phenoxy-4-hydroxybenzaldehyde (VI), m. 121.5-2.degree. (Me ether (VII), m. 49-50.degree.; semicarbazone, m. 172.4-3.degree.), and about the same amt. of 2-HOC6H4OPh (IIA). Oxidation of VII yields IV. p-(.omicron.-MeOC6H4O)C6H4CHO (C. A. 35, 6578.2) yields a semicarbazone, m. 207-8.degree.; demethylation with AlCl3 gives only IIA. 4-HO2CC6H4OC6H4OH-2 (VIII) was prepd. from the oxidized reaction product from II by refluxing with HI-AcOH-Ac2O for 1 hr. (with purification through the Et ester) or by refluxing with KOH in C2H4(OH)2 for 5 hrs. (34% yield); in the latter case 39% of IIA was also formed. Pure 4-HO2CC6H4OC6H4OMe-2 gives 53% VIII with KOH, whereas IV gives 75% of IIA. VI yields 75% of the oxazolone, C22H15NO4, m. 183.4-4.degree., hydrolysis of which yields 50% of 3-phenoxytyrosine, m. 236.degree.; absorption max. at 2970 A. (log .epsilon. 3.62), absorption min. at 2750 A. (log .epsilon. 3.4). The aldehyde mixt. from III, oxidized with KMnO4 and heated with H2SO4 or AcCl, gives 17-23% of 3-methoxyxanthone; pure 2,4-PhO(MeO)C6H3CO2H (IX) gives 54%. IX with AlCl3 in C6H6 yields 64% of

.omicron.-phenoxy-p-hydroxybenzoic acid, m. 163-4.degree.. Demethylation of the oxidized product from III gives 76% of 4,2-PhO(HO)C6H3CO2H; this was synthesized from 4,2-MeO(MeO)C6H3Me. 3-HOC6H4OPh (prepd. in 76% yield from III and KOH in C2H4(OH)2 or in 70% with HI in AcOH) yields an aryloxyacetic acid, C14H12O4, m. 67-7.4.degree..

IT **2417-10-9**, Phenol, o-phenoxy- **307000-29-9**, Benzaldehyde, 4-hydroxy-3-phenoxy-
(prepn. of)

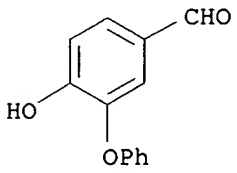
RN 2417-10-9 HCAPLUS

CN Phenol, 2-phenoxy- (9CI) (CA INDEX NAME)



RN 307000-29-9 HCAPLUS

CN Benzaldehyde, 4-hydroxy-3-phenoxy- (9CI) (CA INDEX NAME)



L7 ANSWER 5870 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1943:37458 HCAPLUS

DOCUMENT NUMBER: 37:37458

ORIGINAL REFERENCE NO.: 37:5959b-f

TITLE: The stability of 2,2'-dihydroxydiphenylmethane

AUTHOR(S): Buehler, C. A.; Cooper, Douglas E.; Scrudder, Eugene O.

SOURCE: Journal of Organic Chemistry (1943), 8, 316-19
CODEN: JOCEAH; ISSN: 0022-3263

DOCUMENT TYPE: Journal

LANGUAGE: Unavailable

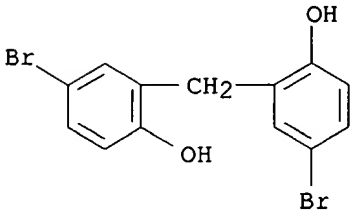
AB To check the stability of 2,2'-dihydroxydiphenylmethane (I), I is synthesized by 2 different methods. A mixt. of 184 g. p-BrC6H4OH and 12 cc. 40% HCHO is added to a stirred mixt. of 296 cc. concd. H2SO4 and 520 cc. H2O heated to 80-90.degree.. After every 4 hrs. 4 cc. more HCHO is added until a total of 12 cc. is used. After 4 addnl. hrs. of heating, the red viscous mass is dissolved in 600 cc. hot MeOH and the soln. poured into 3600 cc. boiling H2O. The upper layer of fluffy needles is filtered and recrystd. from MeOH-H2O (1:6), finally giving 16.7 g. 2,2'-dihydroxy-5,5'-dibromodiphenylmethane (II), m. 183-4.degree.; dibenzoate m. 192.degree.. Reduction of 7 g. II with Na in AmOH gives 3.9 g. I, m. 119-20.degree.; dibenzoate m. 76-7.degree.. The structure of II is proven by methylation with Me2SO4 and KOH giving 2,2'-dimethoxy-5,5'-dibromodiphenylmethane (III), m. 107.5.degree.. Oxidation of III with CrO3 in AcOH gives 2,2'-dimethoxy-5,5'-dibromodiphenyl ketone, m. 123-4.degree.. I, heated for 2 hrs. at 150-60.degree. and distd., gives

xanthene, m. 99.5-100.5.degree.. When to a soln. of 10 g. saligenin in 200 g. p-ClC6H4OH, 0.5 cc. concd. HCl is added dropwise at 30.degree. followed by addn. of 25 cc. HCl in a single portion and the mixt. is stirred for 40 min., 2,2'-dihydroxy-5-chlorodiphenylmethane (IV), b6 220-2.degree., m. 128-9.degree., is formed; dibenzoate m. 80-1.degree.. Reduction of IV with Na in AmOH gives I.

IT **78563-03-8**, Phenol, 2,2'-methylenebis[4-bromo-
(prepn. of)

RN 78563-03-8 HCAPLUS

CN Phenol, 2,2'-methylenebis[4-bromo- (7CI, 9CI) (CA INDEX NAME)



L7 ANSWER 5871 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN

ACCESSION NUMBER: 1943:33619 HCAPLUS

DOCUMENT NUMBER: 37:33619

ORIGINAL REFERENCE NO.: 37:5380f-h

TITLE: Cleavage of phenol ethers with pyridinium compounds. V. Cleavage of diaryl ethers with pyridylalkali

AUTHOR(S): Prey, V.

SOURCE: Bet. (1943), 76B, 156-9

DOCUMENT TYPE: Journal

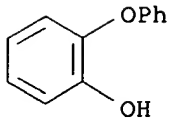
LANGUAGE: Unavailable

AB cf. C. A. 37, 3412.7. The phenol ether (1 mol.) in 4-6 mols. perfectly dry pyridine and 2-3 atoms alkali metal are boiled 4-6 hrs. in a slow current of N, then there are added, dropwise and with shaking, first pyridine, then pyridine-water (1:1) and finally water until no metallic alkali is left; the soln. is shaken with ether to remove unchanged phenol ether, acidified with HCl and extd. with ether; the ext. is washed several times with water, dried with Na2SO4 and evapd. With careful washing and drying, the resulting phenol is practically pure. As alkali pyridyls are spontaneously inflammable, the reaction should be carried out under N, and since metallic alkali is present at the end of the reaction the mixt. must be dild. with pyridine before adding water. From 10 g. Ph2O and 40 g. pyridine refluxed with 5 g. Na, 8 g. K or 3 g. Li were obtained 5, 5 and 4.1 g. phenol, m. 42.degree., 43.degree. 43.degree., resp.; 10 g. p- or m-MeC6H4OPh gave 4.6 or 4.8 g. of phenol + cresol; 4 g. p-HOC6H4OPh, 3.0 g. phenol + .omicron.-C6H4(OH)2; 10 g. PhCH2OPh, anisole or anethole, 4.5, 8.2 or 7.3 g. phenol.

IT **2417-10-9**, Phenol, o-phenoxy-
(cleavage of)

RN 2417-10-9 HCAPLUS

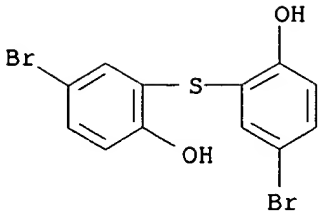
CN Phenol, 2-phenoxy- (9CI) (CA INDEX NAME)



L7 ANSWER 5872 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1943:31422 HCAPLUS
DOCUMENT NUMBER: 37:31422
ORIGINAL REFERENCE NO.: 37:5040f-i
TITLE: Dihydroxydiphenyl sulfones
AUTHOR(S): Machek, G.; Haas, H.; Gruner, H.; Novak-Arienti, M.; Hilber, J.; Thoma, F.; Zehe, H.
SOURCE: Journal fuer Praktische Chemie (Leipzig) (1940), 160, 41-64
CODEN: JPCEAO; ISSN: 0021-8383
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB PhOMeSOCl2-AlCl3 give 4,4'-dimethoxydiphenyl sulfide, m. 43-4.degree. (also obtained from p-IC6H4OMe, p-MeOC6H4SNa, and Cu at 270.degree.), oxidized by aq. KMnO4-AcOH at 100.degree. (bath) to the sulfone, m. 130.4.degree., converted by AlCl3 in boiling xylene into 4,4'-dihydroxydiphenyl sulfone (I), m. 245.degree. (diacetate, m. 165.degree.). PhOH and 30% oleum at 180-90.degree. give 2,4'-dihydroxydiphenyl sulfone (II), m. 186.degree. (di-Me ether, m. 125.degree.; diacetate, m. 135-6.degree.), and I. 2,2'-Dimethoxydiphenyl sulfide (III), obtained from .omicron.-IC6H4OMe, .omicron.-MeOC6H4SNa, and Cu-bronze, is oxidized to the sulfone, m. 197.degree., convertible into 2,2'-dihydroxydiphenyl sulfone, new m. p. 191.degree. (diacetate, new m. p. 186-8.degree.). p-BrC6H4OH and S2Cl2 yield 5,5'-dibromo-2,2'-dihydroxydiphenyl sulfide, and thence (Zn-alkali) 2,2'-dihydroxydiphenyl sulfide, new m. p. 138.degree., also obtained by demethylating III. 3,3'-Diaminodiphenyl sulfone, m. 168-9.degree., affords 3,3'-dihydroxydiphenyl sulfone (IV), m. 192-3.degree. (di-Me ether, m. 88.degree.; diacetate, m. 102.degree.). m-IC6H4OMe, m-MeOC6H4SNa, and Cu-bronze yield 3,3'-dimethoxydiphenyl sulfide, and thence the sulfone and IV. .omicron.-IC6H4OMe-p-MeOC6H4SNa, or p-IC6H4OMe-.omicron.-MeOC6H4SNa, similarly give 2,4'-dimethoxydiphenyl sulfide, m. 45-6.degree., and sulfone, m. 124-5.degree., and thence II. Similarly prepd. are 2,3'-, m. 79.degree., b10 215-17.degree., and 3,4'-dimethoxydiphenyl sulfide, an oil, oxidized to the sulfones, m. 122.5-3.degree. and 89.5.degree., resp., which are converted into 2,3'-, m. 127.degree. (diacetate, m. 108.6.degree.), and 3,4'-dihydroxydiphenyl sulfone, m. 163.5.degree. (diacetate, m. 93.degree.), resp.

IT **5336-22-1**, Phenol, 2,2'-thiobis[4-bromo-
(prepn. of)
RN 5336-22-1 HCAPLUS
CN Phenol, 2,2'-thiobis[4-bromo- (6CI, 7CI, 9CI) (CA INDEX NAME)



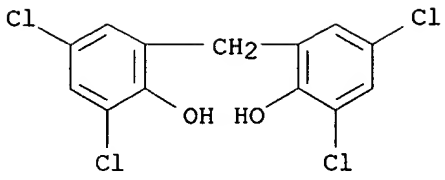
L7 ANSWER 5873 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1943:14479 HCAPLUS
DOCUMENT NUMBER: 37:14479
ORIGINAL REFERENCE NO.: 37:2357g-i,2358a
TITLE: The hardening process in phenol-formaldehyde resins. VII
AUTHOR(S): Zinke, Alois; Ziegler, Erich
SOURCE: Ber. (1941), 74B, 1729-36
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. C. A. 35, 6941.1. The following work represents an example of a hardening reaction in which considerable amts. of a phenol aldehyde are formed. A polymerized quinonemethide was not found. 3,5-Cl2C6H3CH2OH (m. 83.degree.) (1 g.), warmed with 20 cc. AcOH and 2 cc. concd. HCl at 50.degree. for 2 hrs., gives the monoacetate, m. 113-14.degree.; it is easily sapond. by alkali. 3,5,2-Cl2(HO)C6H2CH2OH (I) with Ac2O and AcONa gives the diacetate (II), m. 130.degree.. One g. of I, heated at 140.degree. for 1 hr. and the cooled reaction product extd. with petr. ether, gives 0.7 g. of bis(2-hydroxy-3,5-dichlorobenzyl) ether (III), m. 110-11.degree.; FeCl3 in EtOH give a bluish red color; dibenzoate, pale yellow, m. 148-51.degree.; diacetate (IV), m. 131-3.degree., sublimes at 170-80.degree. in vacuo and at 220-30.degree. (some decompn.) at atm. pressure. IV also results by heating II in vacuo at 130-40.degree.. On heating III, 3,5,2-Cl2(HO)C6H2CHO (V) begins to sublime at 160.degree. and is formed in considerable amts. at 180-200.degree. (0.8 g. from 2.7 g. III); 0.7 g. of III also sublimes, as well as bis(2-hydroxy-3,5-dichlorophenyl)methane (VI); the amt. of VI is larger if the sublimation is at 200-20.degree.. The residue is a dark brown resin, sublimation of which at 260-300.degree. gives bis(2-hydroxy-3,5-dichlorophenyl)ethane (?), m. 203-4.degree.. VI does not result from heating I with dil. aq. alkali; however 3,5,2-Me2(HO)C6H2CH2OH gives bis(2-hydroxy-3,5-dimethylphenyl)methane, which also forms from the Na phenolate in H2O on standing 4 weeks in diffused light. The above results show that the primary reaction in the hardening of I is the formation of III, followed by the formation of V and other compds.

IT **1940-43-8**, Phenol, 2,2'-methylenebis[4,6-dichloro-
(prepn. of)

RN 1940-43-8 HCAPLUS

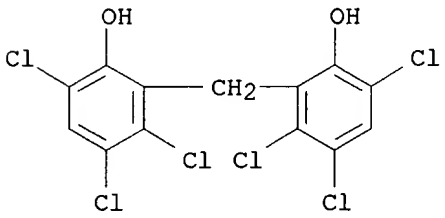
CN Phenol, 2,2'-methylenebis[4,6-dichloro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 5874 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1942:23723 HCAPLUS
DOCUMENT NUMBER: 36:23723
ORIGINAL REFERENCE NO.: 36:3639a-b
TITLE: Alkaline earth metal salts of dihydroxyhexachlorodiphenylmethane
INVENTOR(S): Gump, Wm. S.
PATENT ASSIGNEE(S): Burton T. Bush, Inc.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2272267		19420210	US	

AB Details are given of the production of the mono-Ca, mono-Ba, mono-Sr and mono-Mg salts of 2,2'-dihydroxy-3,5,6,3',5',6'-hexachlorodiphenylmethane, more sol. in acetone and alc. than in water and having bactericidal, insecticidal and preservative properties. U. S. 2,272,268 relates to the corresponding alkali metal salts such as the mono-Na, mono-K and mono-Li salts, which have generally similar properties. Cf. C. A. 35, 7120.2.
IT **70-30-4**, Phenol, 2,2'-methylenebis[3,4,6-trichloro- (alk. earth salts of)
RN 70-30-4 HCAPLUS
CN Phenol, 2,2'-methylenebis[3,4,6-trichloro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 5875 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1942:6333 HCAPLUS
DOCUMENT NUMBER: 36:6333
ORIGINAL REFERENCE NO.: 36:1050d
TITLE: o-Benzyl-p-chlorophenol
INVENTOR(S): Kaiser, Wilhelm
PATENT ASSIGNEE(S): Deutsche Hydrierwerke Akt.-Ges.
DOCUMENT TYPE: Patent

LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

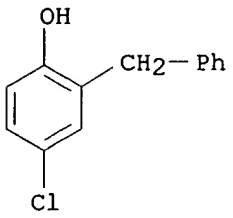
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
DE 703955		19410220	DE	

AB Na or K phenoxide (in excess) is caused to act on benzyl chloride at approx. 60.degree.. The resulting o-benzylphenol (65-70%) is treated with SO2Cl2 without previously sepg. the benzyl phenyl ether (approx. 4%).

IT **120-32-1**, o-Cresol, 4-chloro-.alpha.-phenyl-
(prepn. of)

RN 120-32-1 HCAPLUS

CN Phenol, 4-chloro-2-(phenylmethyl)- (9CI) (CA INDEX NAME)



L7 ANSWER 5876 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1941:45980 HCAPLUS
DOCUMENT NUMBER: 35:45980
ORIGINAL REFERENCE NO.: 35:7120a-c
TITLE: 2,2' - Dihydroxy - 3,5,6,3',5',6' - hexachlorodiphenylmethane
INVENTOR(S): Gump, William S.
PATENT ASSIGNEE(S): Burton T. Bush, Inc.
DOCUMENT TYPE: Patent
LANGUAGE: Unavailable
FAMILY ACC. NUM. COUNT: 1
PATENT INFORMATION:

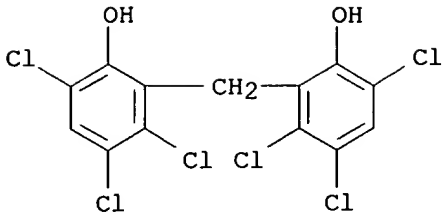
PATENT NO.	KIND	DATE	APPLICATION NO.	DATE
US 2250480		19410729	US	

AB This compd., m. 161-2.degree., and suitable for use as an antiseptic, bactericidal, fungicidal or preserving agent, as in toothpowders, toothpastes, ointments, "creams," cosmetics or rubber goods, is made by treating a soln. contg. 2 mols. of 2,4,5-trichlorophenol, 1 mol. of CH2O and MeOH at a temp. of 0-5.degree. in the presence of H2SO4, and may be purified by crystn. from benzene, toluene or ethylene dichloride.

IT **70-30-4**, Phenol, 2,2'-methylenebis[3,4,6-trichloro-
(prepn. of)

RN 70-30-4 HCAPLUS

CN Phenol, 2,2'-methylenebis[3,4,6-trichloro- (6CI, 7CI, 8CI, 9CI) (CA INDEX NAME)



L7 ANSWER 5877 OF 5877 HCAPLUS COPYRIGHT 2003 ACS on STN
ACCESSION NUMBER: 1939:41307 HCAPLUS
DOCUMENT NUMBER: 33:41307
ORIGINAL REFERENCE NO.: 33:5820h-i,5821a-i,5822a-g
TITLE: Bromination of 2-methoxydiphenyl ether
AUTHOR(S): Lions, Francis; Willison, Alan M.
SOURCE: Journal and Proceedings of the Royal Society of New South Wales (1939), 72, 257-72 (Reprint)
CODEN: JPRSA5; ISSN: 0035-9173
DOCUMENT TYPE: Journal
LANGUAGE: Unavailable

AB cf. C. A. 33, 161.7. To 40 g. 2-methoxydiphenyl ether (I) in 200 cc. AcOH was added gradually 32 g. Br in 40 cc. AcOH. The mixt. was allowed to stand 24 hrs. at room temp. and then gently heated till diln. with H2O of a test portion no longer gave any pink color. The whole was dild. with H2O, the pptd. oil taken up with Et2O, washed with aq. NaOH and H2O, dried over anhyd. Na2SO4 and the solvent removed. The residual oil on distn. gave no definite boiling fractions. Repeated fractionation and recrystn. from the oil fractions gave 5 g. unchanged I, b2.5 192-203.degree., colorless crystals from alc., m. 78.degree.; 5 g. oil b2.5 below 205.degree.; 16 g. 5-bromo-2-methoxydiphenyl ether (II), from alc. in colorless prismatic needles, m. 71.degree.; 12 g. oil, b2.5 205-22.degree. (III); 4 g. oil, b2.5 222-40.degree.; 7 g. 4',5-dibromo-2-methoxydiphenyl ether (IV), obtained from alc. in colorless plates, m. 64.degree.; and 4 g. oil, b2.5 240-50.degree.. The residue from distn. gave on recrystn. from alc. 1 g. prismatic needles, m. 131.degree., of the tri-Br deriv., probably 4,4',5-tribromo-2-methoxydiphenyl ether. If the AcOH soln. after bromination is heated at 75.degree. for several hours the MeO group is partially hydrolyzed and the resulting phenols may be recovered by extn. of their Et2O solns. with aq. NaOH. The fraction b2.5 194-200.degree., recrystd. from light petroleum, gave needles, m. 106.degree., shown to be 2-hydroxydiphenyl ether. The fraction b2.5 200-210.degree. would not crystallize. An equal amt. of 3,5-dinitrobenzoyl chloride was added to the oil in the presence of aq. NaOH. The resulting pale yellow gum on extn. with alc. and recrystn. from C6H6-petr. ether mixt. gave white micro needles, m. 102.degree., of 5-bromo-2-(3,5-dinitrobenzoylexy)diphenyl ether. To a soln. of 12 g. III in 60 cc. AcOH was added 8 cc. HNO3 (d. 1.42) in 20 cc. AcOH. After standing 30 min. H2O was added, the pptd. oil taken up in Et2O, washed with aq. NaOH several times, then with H2O, dried and the solvent removed, leaving a red oil from which no definite fraction could be sepd. From the fraction b2.5 214-22.degree. sepd. unchanged II, m. 71.degree.. Three g. of the residual oil from this fraction was refluxed for 6 hrs. with 10 cc. piperidine. The soln. was cooled and dild. with H2O, pptg. again unchanged II. 5-Amino-2-methoxydiphenyl ether (2 g.) was heated with 10 cc. HBr (d. 1.48) and 5 cc. H2O and completely converted to the sparingly sol. HBr salt. The mass was cooled to

0.degree., 0.68 g. NaNO2 in a little H2O added slowly with stirring, the temp. not being allowed to exceed 5.degree.. It was allowed to stand 30 min., filtered and poured into 20 cc. 30% HBr contg. active Cu powder. On heating carefully the Br compd. sepd. as an oil. This was taken up in Et2O, washed with aq. NaOH and H2O, dried and the solvent removed, giving 2 g. (74%) of an oil b2.5 214-6.degree., from which II was crystd. 4'-Bromo-2-methoxydiphenyl ether (V) was synthesized in good yield. To 9 g. 4'-amino-2-methoxydiphenyl ether was added 75 cc. of 33% HBr, the mixt. cooled to 0.degree. and 3 g. NaNO2 added slowly with stirring. After 60 min. standing the diazonium salt soln. was added to Cu powder in HBr at 0.degree. and stirred vigorously. After 60 min. standing it was carefully heated and stirred till the evolution of N ceased. V, b1.5 195-7.degree., came over as a colorless oil which soldified on scratching, giving needles from alc., m. 38.degree.. V has a pleasant odor more pronounced than II. 4'-Amino-5-bromo-2-methoxydiphenyl ether (VI), m. 88.degree., was obtained in 80% yield from 4'-nitro-2-methoxydiphenyl ether (cf. Buchan and Scarborough C. A. 28, 4712.9). IV was synthesized by 3 different methods: (1) 10 g. I in 50 cc. AcOH was treated with 16 g. Br in 10 cc. AcOH, allowed to stand for 40 hrs. and then heated at 100.degree. for a few min. (2) To 1 g. V in 10 cc. AcOH was added 0.6 g. Br in 2 cc. AcOH. The mixt. was allowed to stand overnight and the oil then pptd. by the addn. of H2O.

(3) Four g. VI was heated with 35 cc. of 30% HBr, the suspension cooled to 0.degree., 0.94 g. NaNO2 added slowly with stirring, the diazotized soln. allowed to stand 30 min. and then poured into HBr contg. active Cu. It was allowed to stand for 30 min. and then heated till the evolution of N ceased. The washed, dried and distd. oil was recrystd. from alc. in poor yield. To 2.5 g. 5-acetylamino-2-methoxyldiphenyl ether in 20 cc. AcOH was added 1.6 g. Br in 10 cc. AcOH and the soln. was allowed to stand overnight, giving 3.3 g. white micro needles from AcOH, m. 158.degree. (decompn.) (contg. 29.8% Br) which may possibly be a partial hydrobromide. It is partially hydrolyzed by boiling H2O, forming ionized Br. It fumes in moist air, gives a blue coloration with KI-starch reagent and is decompd. by heating in most solvents especially if OH groups are present. This substance is readily converted to 4-bromo-5-acetylamino-2-methoxydiphenyl ether (VII) by treatment with aq. or hydroxylic solvents, giving white plates recrystd. from petr. ether in white prismatic needles, m. 100.degree.. VII does not hydrolyze in hot H2O. It has an extremely bitter taste. 4-Bromo-5-amino-2-methoxydiphenyl ether (VIII), m. 68.degree., prismatic needles from aq. MeOH, was obtained by hydrolyzing 2 g. VII under reflux for 3 hrs. with 30 cc. of 15% KOH in MeOH, neutralizing the excess KOH with CO2, filtering the pptd. KHCO3 and dilg. the filtrate with H2O. Treatment of 2 g. VIII with 30 cc. of 30% HBr pptd. the white HBr salt. This was diazotized in an ice bath with NaNO2 and the diazotized amine poured into a cold suspension of Cu powder in 30% HBr. The reaction was completed by warming, the mixt. was extd. with Et2O and the ext. washed and dried. The residual oil was distd., b1.6 230-2.degree., as a colorless oil which solidified on cooling, giving colorless rectangular blocks from alc., m. 83.degree.. 4,4'-Dinitro-5-bromo-2-methoxydiphenyl ether (IX) was synthesized by 3 different methods: (1) To a soln. of II in a mixt. of 5 cc. AcOH and 5 cc. Ac2O was added 2 cc. of fuming HNO3 (d. 1.5) in 8 cc. AcOH, giving after 30 min. 2.3 g. (100%) IX, pale yellow micro needles from AcOH or alc., m. 170.degree.. (2,) II (1 g.) in 10 cc. HNO3 (d. 1.42) was heated gently until brown fumes just started to evolve. On allowing to stand a yellow solid sepd. (3) Fuming HNO3 (d. 1.5) (1 cc.) in 5 cc. AcOH was added to 2 g. 4'-nitro-5-bromo-2-methoxydiphenyl ether in 5 cc. AcOH and 5 cc. Ac2O. The nitration product sepd. after a few min. It was filtered, washed and

recrystd. several times from AcOH. IX reacts readily with piperidine or morpholine, showing the presence of an activated halogen atom or aryloxy group. 5-Morpholyl-4,4'-dinitro-2-methoxydiphenyl ether was prepd. by heating 1 g. IX with 2 cc. morpholine in a boiling water bath for 2 hrs. On cooling the mixt. set to a gel. The addn. of dil. HCl produced a gummy mass which gave from alc. bright orange acicular needles, m. 191.degree.. 4'-Bromo-5-nitro-2-methoxydiphenyl ether (X) was synthesized by 2 different methods: (1) Br (1.6 g.) in 10 cc. AcOH was added to 2.5 g. 5-nitro-2-methoxydiphenyl ether (XI) in 20 cc. AcOH. After 12 hrs. it was dild. with H2O and the solid (3.0 g., 100%) filtered, washed and recrystd. from alc. or AcOH, giving pale yellow needles or leaflets, m. 150.degree.. (2) To 1 g. V in 7 cc. AcOH was added 1.5 cc. HNO3 (d. 1.42) in 3 cc. AcOH and the mixt. kept at 40-50.degree. for a few min., giving on cooling pale yellow needles identical with the above. X apparently does not react with piperidine. 4-Nitro-2-methoxydiphenyl ether (XII) (cf. C. A. 33, 161.7) has now been obtained in cryst. form. The residual oil was dissolved in alc. and slowly allowed to evap. over several months, depositing pale yellow needles, m. 69.degree., and pale yellow, transparent, hexagonal blocks, m. 59.degree., which could be readily sepd. by hand picking. The former is 5-nitro-2-methoxydiphenyl ether and the latter was shown to be XII by reduction to the corresponding amine and comparison with 4-amino-2-methoxydiphenyl ether. XII was recrystd. from petr. ether by seeding and allowing to stand for 14 days, giving hexagonal blocks, m. 59.degree..

IT **2417-10-9**, Phenol, o-phenoxy-
(prepn. of)

RN 2417-10-9 HCAPLUS

CN Phenol, 2-phenoxy- (9CI) (CA INDEX NAME)